

Balkan endemics in the Bulgarian flora

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Abstract. The Bulgarian flora includes 270 endemic Balkan species belonging to 116 genera and 35 families. The highest number of the Balkan endemics are recorded in the Rhodopi Mts floristic region (146), followed by the Pirin Mts (136) and the Balkan Range (115). Together with the Bulgarian endemics they represent *ca.* 12.8 % of the native Bulgarian flora or 11 % of the total flora, including the alien species. Of the endemic species, 165 (87 Balkan and 78 Bulgarian) are legally protected by the national Biological Diversity Act and 176 endemics (108 Balkan and 68 Bulgarian) have been assigned a national IUCN threat category – CR, EN or VU.

Key words: Balkan Peninsula, distribution, endemics, flora, protection, vascular plants

Introduction

The Bulgarian flora is rich and diverse and is still a source of many new floristic and taxonomic finds resulting from the intensive current research. For the past five years (since 2006) over 800 new chorological records have been published for a number of species. In addition, 26 species are new records for the country (Hájek & al. 2006; Nedelcheva & Tzonev 2006; Petrova & Venkova 2006a, b, 2008; Vladimirov & Dimitrova 2006; Kiryakov & Cheschmedzhiev 2007; Petrova, A.S. 2007, 2010; Tzonev 2007; Tzonev & Karakiev 2007; Cheshmedzhiev & Marinov 2009; Peev & al. 2009; Petrova & Vladimirov 2009; Vladimirov 2009; Vladimirov & Petrova 2009a, b), and seven species new to science have been described from Bulgaria [Szelag 2006; Vladimirov & Szelag 2006; Pavlova 2007, 2009 (Petrova & Tan 2009); Teppner 2008; Tan & al. 2009; Stoyanov 2010].

Assyov & Petrova (2006) reported 3997 species of vascular plants for Bulgaria. Since then, 33 additional species have been recorded, bringing the total to *ca.*

4030 species. New data from the present researches, especially from revision of different taxonomic groups for the *Flora of the Republic of Bulgaria* project will reveal some changes in Bulgaria's floristic diversity.

The endemic taxa are among the most attractive components in each flora. Kuzmanov (1981) made an overview of the endemics and their distribution in the country. He reported 330 endemic species (92 Bulgarian and 238 Balkan endemics). Since then numerous changes have set in concerning these species. Some species so far considered Bulgarian or Balkan endemics were discovered in other countries, or outside the territory of the Balkan Peninsula, e.g. some species occur far to the north in Romania outside Dobrogea (*Bupleurum apiculatum*, *Centaurea gracilenta*, *Campanula grossekii*, *Cirsium heterotrichum*, *Erysimum comatum*, *Hypericum rumeliacum*, *Nonea atra*, *Potentilla piroensis*, *Rorippa thracica*, *Thlaspi ochroleucum*, etc.), or in the Asiatic part of Turkey (*Moenchia graeca*, *Peucedanum aegopodioides*, *Tragopogon balcanicus*, *T. pterodes*, *Verbascum thracicum*, *Saxifraga sempervivum*, *S. sancta*, etc.).

An interesting case is *Astragalus physocalyx*, which was described from Bulgaria and considered a Bulgarian endemic for a long time. Subsequently, it was reported for R Macedonia (Micevski 1972), later for NC Greece (Akeroyd 1986) and for the Asian part of Turkey (Nydegger-Hügli 2002). However, some authors still consider it a Balkan endemic.

Other endemics have been found to be conspecific with more widespread species in the recent taxonomic accounts: *Aristolochia macedonica* (= *A. pallida*, Nardi 1997: 73), *Myosotis macedonica* (= *M. incrassata*, Strid 1991: 48), *Silene velenovskyana* (= *S. sendtneri* subsp. *balcanica*, Greuter 1997: 267), etc., or like *Euphorbia velenovskyi*, nom. illeg. (= *E. palustris*, Greuter & al. 1986: 280).

Petrova & Velchev (2006) reported a list of the Bulgarian endemics comprising 172 species and their distribution in the country by floristic regions. The present review aims at providing a list of the Balkan endemic species in the Bulgarian flora, as well as their distribution in Bulgaria and in the Balkan Peninsula.

Materials and methods

Distribution of the Balkan endemics in Bulgaria by floristic regions follows mainly Jordanov (1963–1979), Velčev (1982, 1989), Kožuharov (1992, 1995), Assyov & Petrova (2006), supplemented both with the new chorological data published subsequently (Dimitrov & Trifonov 2006; Stoyanov, S. 2006; Goranova 2007; Goranova & al. 2007; Stanev & Delipavlov 2007; Vassilev 2007; Vassilev & al. 2007a, b; Stoyanov & Kolev 2008; Petrova & al. 2009; Stoyanov, K. 2009; Goranova & al. 2010; Pedashenko 2010; Vladimirov & Petrova 2010; Asenov in press) and with the data from the new taxonomic accounts on particular groups (Niketić 1995–98; Artelari 1997; Bancheva & Raimondo 2003; Ančev & Polatschek 2006; Ančev 2007, in press; Niketić & Tomović 2008a; Gussev in press; Petrova in press; etc.). Numerous sources have been used for the distribution of these species in the Balkan Peninsula (Davis (1958–1965; Tutin & al. 1968–1980, 1993; Josifović 1970–1977; Micevski 1985–2005; Davis & al. 1988; Sarić & Diklić 1986; Strid 1986; Strid & Tan 1991, 1997, 2002; Sarić 1992; Ciocârlan 2000; Güner & al. 2000) as well as Jalas & Suominen (1983–1994), Greuter & al. (1984–1989), Jalas & al. (1996), Stevanović (1999), Jogan (2001), Kurtto & al. (2004, 2007), Con-

ti & al. (2005), Greuter & Raab-Straube (2008), Dihoru & Negrean 2009), etc.

Furthermore, the information in many other articles has been explored to clarify the distribution of the Balkan endemics in the Balkan countries (Kariagiannakidou & Raus 1996; Zlatković & Randelović 1996; Chitos & Thanopoulos 1998; Randelović 1998; Szelag 2003; Tsiripidis & Athanasiadis 2003; Kovačić 2004; Avtzis & al. 2007; Stanković & al. 2007; Stešević & al. 2007; Niketić & Tomović 2008b; Randelović & al. 2008; Rakaj 2009; Gottschlich & Bergmeier 2010), etc., as well as Flora Croatia Data Base – <http://hirc.botanic.hr/fcd/DetaljiFrame.aspx?IdVrste=3219>.

The names of the different countries have been abbreviated in Annex I according to the *Atlas Flora Europaea* (Kurtto & al. 2007). The national conservation status is assigned according to the *Red List of Bulgarian vascular plants* (Petrova & Vladimirov 2009).

Results

Bulgarian flora comprises 270 endemic Balkan species (Annex I). They belong to 35 families and 116 genera. Most endemics are herbaceous perennials (210 species). Richest in Balkan endemics are the families *Asteraceae* (46), *Caryophyllaceae* (28), *Scrophulariaceae* (24) and *Poaceae* (23). They are among the most species-rich families in the country. The same trend is valid for the Bulgarian endemics (Table 1).

In terms both of the Balkan and of the Bulgarian endemics the families rank as follows: *Asteraceae* – 91 endemic species, *Caryophyllaceae* – 44, *Scrophulariaceae* – 40 and *Poaceae* – 39 (Table 1). The highest number of Balkan endemics occurs in the Rhodopi Mts (146), Pirin Mts (136) and the Balkan Range (115) (Table 2). Most Bulgarian endemics are found in the same floristic regions. Altogether, 201 endemics are distributed in the Rhodopi Mts, 176 in the Pirin Mts and 165 in the Balkan Range (Table 2).

Some of these endemics have a large distribution area in the country (*Achillea clypeolata*, *Angelica pannicifolia*, *Armeria rumelica*, *Dianthus moesiacus*, *Melampyrum scardicum*, *Scabiosa triniifolia*, *Sesleria latifolia*, etc.), whereas others are rather rare, distributed only in one floristic region (53 Balkan and 97 Bulgarian endemics, Table 2), some with single or a few localities (*Aesculus hippocastanum*, *Centaurea jankae*, *Cicerbita pannicifolia*, *Geranium aristatum*, *Haplophyllum balcani-*

cum, *Lathyrus pancicii*, *L. alpestris*, *Lilium albanicum*, *Verbascum anisophyllum*, *Verbascum dieckianum*, *Veronica turrilliana*, etc.).

Table 1. Number of Balkan and Bulgarian endemics in the different families.

No	Families	Balkan endemics	Bulgarian endemics*	Total number
1.	Asteraceae	46	45	91
2.	Caryophyllaceae	28	16	44
3.	Scrophulariaceae	24	16	40
4.	Poaceae	23	16	39
5.	Fabaceae	15	9	24
6.	Rosaceae	14	8	22
7.	Campanulaceae	13	3	16
8.	Lamiaceae	13	5	18
9.	Apiaceae	11	5	16
10.	Brassicaceae	10	6	16
11.	Violaceae	8	3	11
12.	Boraginaceae	8	8	16
13.	Liliaceae	7	12	19
14.	Dipsacaceae	6	—	6
15.	Rubiaceae	6	1	7
16.	Ranunculaceae	5	2	7
17.	Crassulaceae	3	1	4
18.	Orchidaceae	3	—	3
19.	Saxifragaceae	3	—	3
20.	Gesneriaceae	2	—	2
21.	Linaceae	2	—	2
22.	Orobanchaceae	2	—	2
23.	Iridaceae	2	—	2
24.	Pinaceae	2	—	2
25.	Plumbaginaceae	2	2	4
26.	Polygalaceae	2	—	2
27.	Primulaceae	2	4	6
28.	Aceraceae	1	—	1
29.	Caprifoliaceae	1	—	1
30.	Geraniaceae	1	—	1
31.	Guttiferae	1	—	1
32.	Hippocastanaceae	1	—	1
33.	Papaveraceae	1	1	2
34.	Rutaceae	1	—	1
35.	Salicaceae	1	—	1
36.	Cyperaceae	—	3	3
37.	Fagaceae	—	2	2
38.	Urticaceae	—	2	2
39.	Onagraceae	—	1	1
40.	Polygonaceae	—	1	1
41.	Thymelaeaceae	—	1	1
42.	Valerianaceae	—	1	1
Total number		270	174	444

*According to Petrova & Velchev (2006) and see also the text under *Some remarks on the Bulgarian endemics* (p. 296).

Eighty-seven Balkan endemics (Annex I) are legally protected by the *Biological Diversity Act* (2007) (Table 3), 12 species are included in Annex I of the *Bern Convention* (1979) and seven in Annex II of the *Directive 92/43/EEC* (1992) (Annex I).

Table 2. Number of endemics distributed in the different floristic regions.

Floristic regions	Balkan endemics	Bulgarian endemics	Total number
Black Sea Coast	25	14	39
Northeast Bulgaria	34	12	46
Danubian Plain	12	6	18
Forebalkan	32	18	50
Balkan Range	115	50	165
Sofia Region	30	10	40
Znepole Region	71	12	83
Mt Vitosha Region	75	16	91
West Frontier Mts	77	12	89
Valley of River Struma	53	10	63
Mt Belasitsa	49	4	53
Mt Slavyanka	91	17	108
Valley of River Mesta	29	3	32
Pirin Mts	136	40	176
Rila Mts	98	35	133
Mt Sredna Gora	49	10	59
Rhodopi Mts	146	55	201
Thracian Lowland	65	23	88
Tundzha Hilly Country	38	17	55
Mt Strandzha	26	5	31
In one floristic region	53	97	150
Throughout country	8	1	9

Table 3. Number of endemic species with national conservation status.

IUCN Categories / BDA	Balkan endemics	Bulgarian endemics	Total number
Critically Endangered (CR)	27	29	56
Endangered (EN)	44	26	70
Vulnerable	37	13	50
Total number	108	68	176
Biological Diversity Act (2007)	87	78	165

Some 140 Balkan endemic species have been evaluated according to the IUCN Red List Criteria and 108 species have been assigned a national IUCN category (Petrova & Vladimirov 2009): *Critically Endangered* – 27 species, *Endangered* – 44 and *Vulnerable* – 37 (Table 3).

The highest number of Balkan endemics is shared with Greece (194), followed by R Macedonia (152), Serbia (139), Albania (94), Turkey(E) (28), and Romania(D) (16) (Table 4).

Table 4. Number / % of Balkan endemics distributed in neighbouring Balkan countries.

Countries	Species (number / %)
Albania (Al)	94 / 34.8 %
Greece (Gr)	194 / 71.9 %
R Macedonia (Mk)	152 / 56.3 %
Serbia (Sr)	139 / 51.5 %
Turkey [Tu(E)]	28 / 10.4 %
Romania [Rm(D)]	16 / 5.9 %

Some remarks on the Bulgarian endemics

Petrova & Velchev (2006) reported 172 Bulgarian endemics for the territory of the country. Since then certain changes have occurred concerning a few species: *Verbascum tzar-borisii* (Davidov ex Stoj.) Stef. was omitted from the list due to a technical error, and was replaced

by *Verbascum thracicum*. (which, however, grows in the Asian part of Turkey too) and should be added; *Achillea thracica*, *Centaurea bovina* and *Verbascum anisophyllum* have been discovered in Romania (Dobrogea), Greece and Serbia, respectively, and are now considered Balkan endemics; *Cynoglossum rotatum* Velen. has been included in the synonymy of *C. montanum* (Sutorý 2008) and should be deleted from the list of Bulgarian endemic species; *Cerastium moesiacum* Friv. and *Centaurea davidovii* Urum. shoud be added to the list of the Bulgarian endemics according to Niketić (1995–98) and Bancheva & Gorgorov (2010) respectively, five other species have been described and should be added to it too: *Aethionema rhodopaeum* D. Pavlova, *Hieracium petrovae* Vladimirov & Szelag, *H. wernerii* Szelag, *Onosma malakarmayorum* Teppner, *O. pavlovae* Petrova & Kit Tan. As a result, the contemporary list of the Bulgarian endemics comprises 174 species (Table 1).

Annex I

List of the Balkan endemics distributed in Bulgaria:

CR – Critically Endangered; EN – Endangered; VU – Vulnerable; NT – Near Threatened; DD – Data Deficient; LC – Least Concern; ● species included in Annex II of the Directive 92/43/EEC; ▼ species included in Annex I of the Bern Convention (1979); species in **bold** are legally protected by the *Biological Diversity Act* (2007); ○ – annual; □ – biennial; ♀ – semishrub; ♀ – perennial; ♀ – shrub; ♀ – tree.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
1.	<i>Abies borisii-regis</i> Mattf.	<i>Pinaceae</i>	♀	LC	Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts	Al, Bu, Gr, Mk, Sr
2.	<i>Acer heldreichii</i> Orph.	<i>Aceraceae</i>	♀	VU	Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Rila Mts, Mt Sredna Gora, Rhodopi Mts	Al, BH, Bu, Cg, Gr, Sr
3.	<i>Achillea ageratifolia</i> (Sm.) Benth. & Hook. f.	<i>Asteraceae</i>	♀	–	Forebalkan, Balkan Range (<i>Central</i>), Znepole Region, Mt Vitosha Region, Valley of River Struma, Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Central</i>), Thracian Lowland	Al, Bu, Cg, Gr, Mk, Sr
4.	<i>A. chrysocoma</i> Friv.	<i>Asteraceae</i>	♀	EN	West Frontier Mts, Mt Slavyanka, Pirin Mts (<i>Southern</i>), Rila Mts	Al, Bu, Gr, Mk, Sr
5.	<i>A. clypeolata</i> Sm.	<i>Asteraceae</i>	♀	–	Throughout country	Al, Bu, Gr, Mk, Rm(D), Sr, Tu(E)
6.	<i>A. pseudopectinata</i> Janka	<i>Asteraceae</i>	♀	–	Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Gr, Mk, Rm(D)
7.	<i>Aesculus hippocastanum</i> L.	<i>Hippocastanaceae</i>	♀	EN	Northeast Bulgaria	Al, Bu, Gr, Mk
8.	<i>Alchemilla bandericensis</i> Pawł.	<i>Rosaceae</i>	♀	CR	Pirin Mts	Bu, Mk
9.	<i>A. bulgarica</i> Rothm.	<i>Rosaceae</i>	♀	VU	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Ftontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu, Cg, Gr, Mk, Sr
10.	<i>A. catachnoa</i> Rothm.	<i>Rosaceae</i>	♀	EN	Balkan Range (<i>Central</i>), Pirin Mts (<i>Northern</i>), Rila Mts	Al, Bu, Cg
11.	<i>A. damianicensis</i> Pawł.	<i>Rosaceae</i>	♀	–	Pirin Mts (<i>Northern</i>)	Bu, Mk

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
12.	<i>A. indivisa</i> (Form. ex Buser) Rothm.	Rosaceae	2	EN	Balkan Range (<i>Central</i>)	Bu, Gr, Mk, Sr
13.	<i>A. pиринica</i> Pawl.	Rosaceae	2	DD	Pirin Mts	Bu, Mk, Sr
14.	<i>A. viridiflora</i> Rothm.	Rosaceae	2	VU	Balkan Range (<i>Central</i>), Znepole Region, West Frontier Mts, Pirin Mts (<i>Northern</i>), Rila Mts	Bu, Gr, Mk, Sr
15.	<i>Alkanna graeca</i> Boiss. & Spruner	Boraginaceae	2	-	Pirin Mts, Thracian Lowland	Bu, Gr
16.	<i>A. primuliflora</i> Griseb.	Boraginaceae	2	LC	West Frontier Mts, Valley of River Struma, Valley of River Mesta, Pirin Mts, Mt Sredna Gora, Rhodopi Mts (<i>Central & Eastern</i>), Thracian Lowland, Tundzha Hilly Country	Bu, Gr, Mk
17.	<i>A. stribrnyi</i> Velen.	Boraginaceae	2	NT	Balkan Range (<i>Western</i>), Mt Slavyanka, Pirin Mts (<i>Southern</i>), Mt Sredna Gora, Rhodopi Mts (<i>Central & Eastern</i>), Thracian Lowland, Tundzha Hilly Country	Bu, Gr, Mk, Sr
18.	<i>Allium melanantherum</i> Pančić	Liliaceae	2	-	Balkan Range (<i>Central</i>), Sofia Region, Mt Vitosha Region, West Frontier Mts, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr, Mk, Sr
19.	<i>Alyssum corymbosoides</i> Form.	Brassicaceae	2	-	Forebalkan, Znepole Region, Valley of River Struma, Valley of River Mesta, Pirin Mts (<i>Southern</i>), Rhodopi Mts (<i>Central & Eastern</i>), Thracian Lowland	Bu, Gr, Mk, Sr
20.	<i>Anchusa macedonica</i> Degen & Dörfli.	Boraginaceae	⊕-⊖	VU	Valley of River Struma (<i>Southern</i>)	Bu, Gr, Mk
21.	<i>A. velenovskyi</i> (Guşul.) Stoj.	Boraginaceae	2	VU	Black Sea Coast, Northeast Bulgaria	Bu, Rm(D)
22.	<i>Androsace hedraeantha</i> Griseb.	Primulaceae	2	VU	Balkan Range (<i>Western & Central</i>), Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu, Mk, Sr
23.	<i>Angelica pancicii</i> Vandas	Apiaceae	⊕-2	VU	Throughout country (except Valley of River Struma, Valley of River Mesta, Thracian Lowland & Tundzha Hilly Country)	Bu, Mk, Sr
24.	<i>Anthemis macedonica</i> Boiss. & Orph.	Asteraceae	⊕-2	-	Balkan Range, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland	Bu, Gr, Mk
25.	<i>Anthyllis aurea</i> Welden ex Host	Fabaceae	2	VU	Znepole Region, Mt Vitosha Region, Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, BH, Cg, Ct, Bu, Gr, Mk, Sr
26.	<i>Aquilegia aurea</i> Janka	Ranunculaceae	2	NT	Mt Vitosha Region, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western</i>)	Bu, ?Gr, Mk
27.	<i>Armeria rumelica</i> Boiss.	Plumbaginaceae	2	-	Throughout country [except Black Sea Coast (<i>Northern</i>), Balkan Range (<i>Eastern</i>) & Mt Strandzha]	Bu, Gr, Mk, Sr, Tu(E)
28.	<i>Astragalus wilmottianus</i> Stoj.	Fabaceae	2	EN	Balkan Range (<i>Western</i>), Znepole Region	Bu, Sr
29.	<i>Asyneuma anthericoides</i> (Janka) Bornm.	Campanulaceae	2		Black Sea Coast (<i>Northern</i>), Northeast Bulgaria, Balkan Range, Sofia Region, Znepole Region, Valley of River Mesta, Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Western & Central</i>)	Bu, Rm(D), Sr
30.	<i>A. pichleri</i> (Vis.) D. Lakušić & F. Conti	Campanulaceae	2	-	Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts	Al, BH, Bu, Cg, Gr, Mk, Sr
31.	<i>Aubrieta gracilis</i> Spruner ex Boiss.	Brassicaceae	2	VU	Pirin Mts, Rila Mts	Al, Bu, Gr, Mk
32.	<i>Barbarea balcana</i> Pančić	Brassicaceae	2	-	Balkan Range (<i>Western & Central</i>), Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, BH, Bu, Cg, Gr, Mk, Sr
33.	<i>B. longirostris</i> Velen.	Brassicaceae	2	-	Mt Belasitsa, Rhodopi Mts (<i>Western & Central</i>), Thracian Lowland	Al, Bu, Gr, Mk

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
34.	<i>Betonica scardica</i> (Griseb.) Hayek [<i>Stachys scardica</i> (Griseb.) Hayek]	Lamiaceae	‡	EN	Znepole Region, West Frontier Mts	Al, BH, Bu, Cg, Gr, Mk, Sr
35.	<i>Bromus lacmonicus</i> Hausskn.	Poaceae	‡	–	Mt Slavyanka, Pirin Mts, Rhodopi Mts (Western)	Bu, Gr
36.	<i>Bupleurum uechtritzianum</i> S. Stoyanov	Apiaceae	⊕	–	Northeast Bulgaria	Bu, Rm(D)
37.	<i>Campanula epigaea</i> Degen	Campanulaceae	⊕	–	Balkan Range (Western & Central), Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (Western & Central)	Bu, Gr, Mk, Sr
38.	<i>C. jordanovii</i> Ančev & Kovanda	Campanulaceae	‡	VU	Forebalkan (Western), Balkan Range (Western), Mt Slavyanka, Pirin Mts (Northern), Rhodopi Mts (Western & Central)	Bu, Mk
39.	<i>C. lanata</i> Friv.▼	Campanulaceae	⊕	VU	Balkan Range (Central), Valley of River Mesta, Rila Mts, Mt Sredna Gora, Rhodopi Mts (Western & Central)	Bu, Gr, Mk
40.	<i>C. moesiaca</i> Velen.	Campanulaceae	⊕	VU	Balkan Range (Western & Central), Sofia Region, Znepole Region, Mt Vitosha Region, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (Western & Central)	Al, BH, Bu, Cg, Ct, Gr, Mk, Sr
41.	<i>C. scutellata</i> Griseb.	Campanulaceae	⊕	–	Danubian Plain, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora (Western), Rhodopi Mts, Thracian Lowland	Bu, Gr, Mk, Sr
42.	<i>C. spatulata</i> Sm.	Campanulaceae	‡	–	Mt Belasitsa, Mt Slavyanka	Al, Bu, Cg, Gr, Mk, Sr
43.	<i>C. sphaerothrix</i> Griseb.	Campanulaceae	⊕	–	Forebalkan, Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts, Thracian Lowland	Al, Bu, Cg, Gr, Mk, Sr
44.	<i>C. velebitica</i> Borbás	Campanulaceae	‡	LC	Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts (Western & Central), Thracian Lowland	Al, BH, Bu, Ct, Gr, Mk, Sr
45.	<i>Carduus thracicus</i> (Velen.) Hayek	Asteraceae	‡	VU	Balkan Range (Eastern), Valley of River Struma (Southern), Rhodopy Mts, Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Tu(E)
46.	<i>Carum graecum</i> Boiss. & Heldr.	Apiaceae	‡	NT	Balkan Range (Central), Mt Slavyanka, Pirin Mts, Rhodopi Mts (Western & Central)	Al, Bu, Gr, Sr
47.	<i>Centaurea bovina</i> Velen.	Asteraceae	⊕	EN	Northeast Bulgaria, Balkan Range (Eastern)	Bu, Gr
48.	<i>C. caliacrae</i> Prodán	Asteraceae	⊕-‡	–	Black Sea Coast (Northern), Northeast Bulgaria	Bu, Rm(D)
49.	<i>C. chrysolepis</i> Vis.	Asteraceae	‡	–	Northeast Bulgaria, Forebalkan, Balkan Range (Western), Znepole Region, Mt Vitosha Region, Valley of River Struma, Rhodopi Mts (Eastern), Tundzha Hilly Country	BH, Bu, Cg, Sr
50.	<i>C. epapposa</i> Velen.	Asteraceae	⊕-‡	–	?Northeast Bulgaria, Balkan Range (Central)	Bu, Sr
51.	<i>C. finazzeri</i> Adamović	Asteraceae	‡	CR	Valley of Sruma River (Northern)	Bu, Cg, Gr, Mk, Sr
52.	<i>C. immanuelis-loewii</i> • Degen	Asteraceae	‡	EN	Znepole Region, Valley of River Struma, Pirin Mts	Bu, Gr
53.	<i>C. jankae</i> D. Brándzá •▼	Asteraceae	‡	EN	Northeast Bulgaria	Bu, Rm(D)
54.	<i>C. mannagettae</i> Podp.	Asteraceae	‡	EN	Mt Slavyanka, Pirin Mts, Rila Mts, Thracian Lowland, Tundzha Hilly Country	Bu, Sr
55.	<i>C. pallidior</i> Halácsy	Asteraceae	‡	–	Balkan Range (Central), Mt Vitosha Region, Rila Mts, Rhodopi Mts (Western & Eastern)	Bu, Gr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
56.	<i>C. parilica</i> Stoj. & Stef.	Asteraceae	¶	EN	Mt Slavyanka, Pirin Mts (<i>Southern</i>)	Bu, Gr
57.	<i>C. rumelica</i> Boiss.	Asteraceae	¶	EN	Northeast Bulgaria, Danubian Plain	Bu, Mk, Rm(D)
58.	<i>C. rutifolia</i> Sm.	Asteraceae	¶	-	Black Sea Coast, Northeast Bulgaria, Balkan Range (<i>Eastern</i>), Sofia Region, Valley of River Struma, Mt Belasitsa, Pirin Mts, Rhodopi Mts (<i>Eastern</i>)	Bu, Gr
59.	<i>C. subciliaris</i> Boiss. & Heldr.	Asteraceae	¶	-	Mt Slavyanka	Bu, Gr
60.	<i>C. tymphaea</i> Hausskn.	Asteraceae	¶	-	Black Sea Coast (<i>Southern</i>), Tundzha Hilly Country	Bu, Gr, Mk
61.	<i>C. varnensis</i> Velen.	Asteraceae	¶	-	Black Sea Coast, Thracian Lowland	Bu, Rm(D)
62.	<i>Cephalaria flava</i> (Sm.) Szabó	Dipsacaceae	¶	-	Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora (<i>Western</i>), Rhodopi Mts, Thracian Lowland	Bu, Gr, Mk, Sr
63.	<i>Cerastium rectum</i> Friv. (incl. <i>C. petricola</i> Pančić)	Caryophyllaceae	⊕	NT	Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Central</i>)	Al, BH, Bu, Cg, Gr, Mk, Sr
64.	<i>Chamaecytisus absinthioides</i> (Janka) Kuzmanov	Fabaceae	ḥ	-	Znepole Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Rhodopi Mts	Bu, Gr, Mk, Sr
65.	<i>C. calcareus</i> (Velen.) Kuzmanov	Fabaceae	ḥ	-	Forebalkan (<i>Western</i>), Balkan Range, Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Western</i>), Thracian Lowland	Al, Bu, Mk
66.	<i>C. jankae</i> (Velen.) Rothm.	Fabaceae	ḥ	-	Black Sea Coast, Northeast Bulgaria, Forebalkan (<i>Western</i>), Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Eastern</i>), Mt Strandzha	Al, BH, Bu, Mk, Rm(D), Sr, Tu(E)
67.	<i>Chondrilla urumoffii</i> Degen	Asteraceae	¶	VU	Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Central</i>)	Bu, Gr
68.	<i>Cicerbita pannicaria</i> (Vis.) Beauverd	Asteraceae	¶	CR	Rila Mts	Al, BH, Bu, Cg, Gr, Mk, Sr
69.	<i>Cirsium appendiculatum</i> Griseb.	Asteraceae	¶	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Gr, Mk, Sr
70.	<i>Colchicum doerfleri</i> Halászy	Liliaceae	¶	EN	Valley of Sruma River, Mt Slavyanka, Pirin Mts (<i>Southern</i>)	Al, Bu, Gr, Mk
71.	<i>Corothamnus agnipilus</i> (Velen.) Klásk	Fabaceae	ḥ	-	Northeast Bulgaria, Znepole Region, Mt Vitosha Region, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country	Al, Bu, Gr, Mk
72.	<i>Crataegus heldreichii</i> Boiss.	Rosaceae	ḥ	VU	West Frontier Mts, Valley of River Struma (<i>Southern</i>), Mt Slavyanka, Rhodopi Mts (<i>Eastern</i>)	Al, Bu, Gr, Mk, Sr
73.	<i>Crocus pallidus</i> Kitan. & Drenk.	Iridaceae	¶	-	Northeast Bulgaria	Bu, Mk
74.	<i>C. veluchensis</i> Herb.	Iridaceae	¶	-	Forebalkan, Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts	Al, Bu, Gr, Mk, Sr
75.	<i>Crucianella graeca</i> Boiss.	Rubiaceae	⊕	-	Balkan Range (<i>Western & Eastern</i>), Znepole Region, West Frontier Mts, Valley of River Struma, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Rhododpi Mts, Thracian Lowland	Bu, Gr, Mk, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
76.	<i>Cyanus napulifer</i> (Rochel) Soják	Asteraceae	2	-	Balkan Range (<i>Western & Central</i>), West Frontier Mts, Rila Mts, Rhodopi Mts	BH, Bu, Gr, Mk, Sr
77.	<i>C. orbelicus</i> (Velen.) Soják	Asteraceae	2	-	Balkan Range, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (<i>Western</i>)	Bu, Gr, Mk, Sr
78.	<i>C. tuberosus</i> (Vis.) Soják	Asteraceae	2	-	Znepole Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts	Al, BH, Bu, Gr, Mk, Sr
79.	<i>C. velenovskyi</i> (Adamović) Wagenitz & Greuter	Asteraceae	2	-	Balkan Range (<i>Central</i>), Rila Mts	Bu, Gr, Sr
80.	<i>Dactylorhiza baumanniana</i> Hölz. & Künkele	Orchidaceae	2	-	Balkan Range (<i>Western & Central</i>), Pirin Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr
81.	<i>D. kalopissii</i> E. Nelson •	Orchidaceae	2	CR	Balkan Range (<i>Eastern</i>), Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Central</i>), Tundzha Hilly Country	Bu, Gr, Mk
82.	<i>D. pindica</i> B. & E. Willing	Orchidaceae	2	-	Balkan Range (<i>Western & Central</i>)	Bu, Gr
83.	<i>Delphinium balcanicum</i> Pawł.	Ranunculaceae	○	EN	Valley of Sruma River, Valley of River Mesta, Pirin Mts, Rhodopi Mts (<i>Central</i>), Thracian Lowland	Al, Bu, Gr, Sr, Tu(E)
84.	<i>Dianthus drenowskianus</i> Rech. f.	Caryophyllaceae	2	CR	Mt Slavyanka	Bu, Gr
85.	<i>D. gracilis</i> Sm.	Caryophyllaceae	2	-	Valley of Sruma River, West Frontier Mts, Mt Slavyanka, Pirin Mts, Rhodopi Mts, Thracian Lowland	Al, Bu, Gr, Mk, Sr
86.	<i>D. microlepis</i> Boiss.	Caryophyllaceae	2	LC	Balkan Range (<i>Central</i>), Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Mk, Sr
87.	<i>D. moesiacus</i> Vis. & Pančić	Caryophyllaceae	2	-	Throughout country	Bu, Sr
88.	<i>D. pelviformis</i> Heuff.	Caryophyllaceae	2	-	Znepole Region, Mt Vitosha Region, Valley of River Struma, Pirin Mts, Rila Mts	Al, Bu, Gr, Mk, Sr
89.	<i>D. simulans</i> Stoj. & Stef.	Caryophyllaceae	2	VU	Mt Slavyanka	Bu, Gr
90.	<i>D. stenopetalus</i> Griseb.	Caryophyllaceae	2	-	Thracian Lowlands	Bu, Gr, Mk, Sr
91.	<i>D. stribryni</i> Velen.	Caryophyllaceae	2	VU	Balkan Range (<i>Central</i>), Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Central</i>), Thracian Lowland	Al, Bu, Sr
92.	<i>D. tristis</i> Velen.	Caryophyllaceae	2	-	Balkan Range (<i>Western</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts	Al, Bu, Ct, Gr, Mk, Sr
93.	<i>Digitalis viridiflora</i> Lindl.	Scrophulariaceae	2	-	Balkan Range, Znepole Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Mt Strandzha	Al, Bu, Gr, Mk, Sr, Tu(E)
94.	<i>Draba korabensis</i> Kümmerle & Degen ex Jav.	Brassicaceae	2	EN	Pirin Mts (<i>Northern</i>)	Al, Bu, Mk, Sr
95.	<i>Echinops oxyodontus</i> Bornm. & Diels	Asteraceae	2	-	West Frontier Mts, Valley of River Struma, Pirin Mts	Bu, Sr
96.	<i>Edraianthus serbicus</i> Petrović	Campanulaceae	2	EN	Znepole Region, West Frontier Mts	Bu, Sr
97.	<i>Eryngium palmatum</i> Pančić & Vis.	Apiaceae	2-○-○	EN	Northeast Bulgaria, Forebalkan, Balkan Range (<i>Western</i>), Sofia Region, Znepole Region	Al, BH, Bu, Cg, Gr, Mk, Sr
98.	<i>Erysimum drenowskii</i> Degen	Brassicaceae	2	-	Balkan Range (<i>Central</i>), Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Central</i>)	Bu, Gr
99.	<i>E. pirinicum</i> Ančev & Polatschek	Brassicaceae	○	-	Mt Slavyanka, Pirin Mts	Bu, Gr
100.	<i>E. welcevii</i> Urum.	Brassicaceae	○-2	-	Black Sea Coast, Northeast Bulgaria, Forebalkan, Balkan Range, Znepole Region, Mt Vitosha Region, Mt Slavyanka, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Strandzha	Bu, Gr, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
101.	<i>Festuca hercegovinica</i> Markgr.-Dannb.	Poaceae	2	-	Valley of River Struma, Mt Belasitsa	BH, Bu, Ct, Gr, Mk
102.	<i>F. hirtovaginata</i> (Acht.) Markgr.-Dannb.	Poaceae	2	-	Mt Belasitsa, Rila Mts	Bu, Gr, Mk
103.	<i>F. horvatiana</i> Markgr.-Dannb.	Poaceae	2	-	Pirin Mts, Rila Mts	Bu, Gr, Mk
104.	<i>F. illyrica</i> Markgr.-Dannb.	Poaceae	2	-	West Frontier Mts, Mt Sredna Gora	Bu, Cg, Ct, Mk, Sr
105.	<i>F. koritnicensis</i> Hayek & Vetter	Poaceae	2	-	Rila Mts	Bu, Gr, Mk, Sr
106.	<i>F. macedonica</i> Vetter	Poaceae	2	-	Pirin Mts	Bu, Gr
107.	<i>F. oviniformis</i> Vetter	Poaceae	2	-	Balkan Range (Eastern), Valley of River Struma (Southern), Rhodopi Mts (Eastern)	Bu, Gr
108.	<i>F. penzesii</i> (Acht.) Markgr.-Dannb.	Poaceae	2	-	Mt Slavyanka, Pirin Mts, Rhodopi Mts (Western & Central)	Bu, Gr
109.	<i>F. peristerea</i> (Vetter) Markgr.-Dannb.	Poaceae	2	-	Pirin Mts, Rhodopi Mts (Central)	Bu, Gr, Mk
110.	<i>F. pirinica</i> Horvat ex Markgr. Dannb.	Poaceae	2	VU	Mt Slavyanka, Pirin Mts	Bu, Gr
111.	<i>F. riloensis</i> (Hack. ex Hayek) Markgr.-Dannb.	Poaceae	2	-	West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts	Bu, Cg, Gr
112.	<i>F. stojanovii</i> (Acht.) Kozuharov ex Foggi & Petrova	Poaceae	2	-	Balkan Range, West Frontier Mts	Bu, Sr
113.	<i>F. thracica</i> (Acht.) Markgr.-Dannb.	Poaceae	2	EN	Valley of River Struma, Mt Slavyanka, Pirin Mts (Southern), Rhodopi Mts (Central & Eastern), Thracian Lowland	Bu, Gr, Mk
114.	<i>F. valida</i> (Uechtr.) Penzes	Poaceae	2	-	Balkan Range (Western & Central), Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (Central)	Bu, Gr, Mk
115.	<i>Festucopsis sancta</i> (Janka) Meld. (<i>Peridycction sanctum</i>)	Poaceae	2	EN	Mt Slavyanka, Pirin Mts (Southern)	Bu, Gr
116.	<i>Fritillaria drenovskii</i> Degen & Stoj.	Liliaceae	2	CR	Mt Slavyanka, Pirin Mts	Bu, Gr
117.	<i>F. guissichiae</i> (Degen & Dörf.) Rix. •▼	Liliaceae	2	NT	West Frontier Mts, Valley of River Struma, Mt Vitosha Region, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Rila Mts, Mt Sredna Gora (Western), Rhodopi Mts (Western), Thracian Lowland	Al, Bu, Gr, Mk, Sr
118.	<i>F. stribrnyi</i> Velen.	Liliaceae	2	CR	Thracian Lowland, Tundzha Hilly Country	Bu, Mk, Tu(E)
119.	<i>Galium aegeum</i> (Stoj. & Kitan.) Ančev	Rubiaceae	2	EN	Mt Slavyanka, Pirin Mts (Southern)	Bu, Gr
120.	<i>G. macedonicum</i> Krendl	Rubiaceae	2	-	Valley of River Struma, Mt Belasitsa, Pirin Mts	Bu, Gr, Mk
121.	<i>G. mirum</i> Rech. f.	Rubiaceae	2	VU	Valley of River Mesta, Rhodopi Mts (Western & Eastern), Thracian Lowland	Bu, Gr, Mk, Sr
122.	<i>G. procurrens</i> Ehrend.	Rubiaceae	2	CR	Mt Slavyanka	Al, Bu, Mk
123.	<i>G. rhodopeum</i> Velen. ▼	Rubiaceae	2	EN	Rhodopi Mts (Western & Central), Thracian Lowland	Bu, Gr, Mk, Sr
124.	<i>Genista rumelica</i> Velen.	Fabaceae	5	-	Balkan Range (Central & Eastern), Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora (Western), Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Gr, Tu(E)
125.	<i>G. subcapitata</i> Pancić	Fabaceae	5	-	Znepole Region, Mt Vitosha Region, Mt Slavyanka, Pirin Mts, Mt Sredna Gora (Western), Rhodopi Mts (Central)	Al, Bu, Gr, Mk, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
126.	<i>Geranium aristatum</i> Freyn & Sint.	Geraniaceae	2	CR	West Frontier Mts	Bu, Gr, Mk
127.	<i>Geum bulgaricum</i> Pančić▼	Rosaceae	2	NT	Rila Mts	Al, BH, Bu, Cg, Sr
128.	<i>G. rhodopaeum</i> Stoj. & Stef.	Rosaceae	2	NT	West Frontier Mts, Pirin Mts (<i>Southern</i>), Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Western</i>)	Bu, Gr, Sr
129.	<i>Goniolimon dalmaticum</i> (C. Presl) Rchb. f.	Plumbaginaceae	2	CR	Mt Slavyanka	Al, Bu, Ct, Gr, Mk
130.	<i>Haberlea rhodopensis</i> Friv.▼	Gesneriaceae	2	LC	Balkan Range (<i>Central</i>), Mt Sredna Gora, Rhodopi Mts (<i>Central & Eastern</i>)	Bu, Gr
131.	<i>Haplophyllum balcanicum</i> Vandas	Rutaceae	2	CR	Mt Slavyanka	Bu, Gr
132.	<i>Heptaptera triquetra</i> (Vent.) Tutin	Apiaceae	2	VU	Black Sea Coast (<i>Southern</i>), Balkan Range (<i>Eastern</i>), Thracian Lowland, Mt Standzha	Bu, Tu(E)
133.	<i>Heracleum verticillatum</i> Pančić	Apiaceae	⊕-2	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Gr, Mk, Sr
134.	<i>Herniaria nigrimontium</i> Herm.	Caryophyllaceae	⊕	-	Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu, Cg, Gr, Mk
135.	<i>Hesperis theophrasti</i> Borbás	Brassicaceae	⊕-2	VU	Mt Vitosha Region, Rila Mts, Thracian Lowland, Mt Strandzha	Al, Bu, Gr, Mk, Tu(E)
136.	<i>Hieracium divaricatum</i> Fr	Asteraceae	2	-	Forebalkan, Mt Vitosha Region, West Frontier Mts, Pirin Mts	Al, Bu, Gr, Mk, Sr
137.	<i>H. heldreichii</i> Boiss.	Asteraceae	2	-	Balkan Range (<i>Central</i>), Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rhodopi Mts	Bu, Gr, Sr
138.	<i>H. heterogynum</i> (Froel.) Gutermann	Asteraceae	2	-	Znepole Region, West Frontier Mts, Mt Sredna Gora (<i>Western</i>) Rhodopi Mts (<i>Central</i>)	Al, BH, Bu, Cg, Ct, Sr
139.	<i>H. klisurae</i> Urum.	Asteraceae	2	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Frontier Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Sr
140.	<i>H. marmoreum</i> Pančić & Vis.	Asteraceae	2	-	Mt Vitosha Region, Znepole Region	Bu, Mk, Sr
141.	<i>H. mattfeldianum</i> Zahn	Asteraceae	2	-	Pirin Mts, Rhodopi Mts (<i>Central</i>)	Bu, Sr
142.	<i>H. neodivergens</i> Gottschl.	Asteraceae	2	-	Mt Vitosha Region, Znepole Region, Valley of River Struma, Thracian Lowland	Bu, Gr
143.	<i>H. ossaeum</i> Zahn	Asteraceae	2	-	Mt Sredna Gora, Tundzha Hilly Country	Bu, Gr
144.	<i>H. schultzianum</i> Pančić & Vis.	Asteraceae	2	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr, Mk, Sr
145.	<i>H. tommasinianum</i> K. Malý	Asteraceae	2	-	Znepole Region, Mt Vitosha Region, West Frontier Mts	Al, BH, Bu, Cg, Ct, Mk, Sr
146.	<i>H. velenovskyi</i> Freyn	Asteraceae	2	-	Balkan Range (<i>Western</i>), Mt Vitosha Region, Rila Mts	Bu, Sr
147.	<i>Hypecoum ponticum</i> Velen.	Papaveraceae	⊕	EN	Black Sea Coast, Valley of River Struma, Rila Mts, Rhodopi Mts (<i>Eastern</i>)	Bu, Tu(E)
148.	<i>Hypericum thasium</i> Griseb.	Guttiferae	2	VU	Rhodopi Mts (<i>Eastern</i>), Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Gr, Tu(E)
149.	<i>Jurinea tzar-ferdinandi</i> Davidov	Asteraceae	2	VU	Northeast Bulgaria, Balkan Range (<i>Eastern</i>), Znepole Region, West Frontier Mts	Bu, Rm(D)
150.	<i>Knautia ambigua</i> Boiss. & Orph.	Dipsacaceae	2	-	Forebalkan, Balkan Range, Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Gr, Mk, Sr

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No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
151.	<i>K. midzorensis</i> Form.	<i>Dipsacaceae</i>	2	-	Balkan Range (<i>Westren & Central</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al?, Bu, Gr?, Mk, Sr
152.	<i>Koeleria simonkaii</i> Adamović	<i>Poaceae</i>	2	-	Black Sea Coast (<i>Northern</i>), Northeast Bulgaria, Forebalkan, Balkan Range (<i>Eastern</i>), Sofia Region, West Frontier Mts, Valley of River Struma, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (<i>Western & Eastern</i>), Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Sr
153.	<i>Lathraea rhodopea</i> Dingler	<i>Scrophulariaceae</i>	2	NT	Valley of River Struma (<i>Souther</i>), Mt Slavyanka, Rhodopi Mts, Thracian Lowland	Bu, Gr
154.	<i>Lathyrus alpestris</i> (Waldst. & Kit.) Kit. ex Čelak.	<i>Fabaceae</i>	2	CR	Mt Vitosha Region	Al, Bu, Ct, Gr, Mk, Sr
155.	<i>L. pancicii</i> (Jurišić) Adamović	<i>Fabaceae</i>	2	CR	Znepole Region	Bu, Sr
156.	<i>Lilium albanicum</i> Griseb.	<i>Liliaceae</i>	2	CR	Mt Belasitsa	Al, Bu, Cg, Gr, Mk, Sr
157.	<i>L. rhodopaeum</i> Delip. ▼	<i>Liliaceae</i>	2	CR	Rhodopi Mts (<i>Central & Eastern</i>)	Bu, Gr
158.	<i>Linaria ruboides</i> Vis. & Pančić	<i>Scrophulariaceae</i>	2		Balkan Range (<i>Western</i>), Znepole Region	Bu, Sr
159.	<i>Linum elegans</i> Spruner ex Boiss.	<i>Linaceae</i>	2	EN	Mt Savyanka, Valley of River Mesta, Pirin Mts, Rhodopi Mts (<i>Central</i>)	Al, Bu, Cg, Ct, Gr, Mk, Sr
160.	<i>L. thracicum</i> (Griseb.) Degen	<i>Linaceae</i>	2	-	Forebalkan, Balkan Range (<i>Central & Eastern</i>), Mt Belasitsa, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country	Bu, Gr, Mk, Sr, Tu(E)
161.	<i>Lychnis subintegra</i> (Hayek) Turrill	<i>Caryophyllaceae</i>	2	-	Throughout country	Al, Bu, Gr, Mk, Sr
162.	<i>Melampyrum scardicum</i> Wettst.	<i>Scrophulariaceae</i>	○	-	Throughout country	Al, Bu, Cg, Mk, Sr
163.	<i>Micromeria dalmatica</i> Benth.	<i>Lamiaceae</i>	2	-	Valley of River Struma, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rhodopi Mts	Bu, Cg, Ct, Gr
164.	<i>Minuartia bosniaca</i> (Beck) K. Maly	<i>Caryophyllaceae</i>	2	-	Sofia Region, Znepole Region, West Frontier Mts, Mt Slavyanka, Valley of River Mesta, Pirin Mts (<i>Northern</i>), Rhodopi Mts (<i>Western & Central</i>)	Al, BH, Bu, Cg, Ct, Mk, Sr
165.	<i>M. bulgarica</i> (Velen.) Graebn.	<i>Caryophyllaceae</i>	2	VU	Balkan Range (<i>Western & Eastern</i>), Znepole Region, Mt Vitosha Region, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Tundzha Hilly Country	Bu, Mk, Sr
166.	<i>M. stojanovii</i> (Kitan.) Kožuharov & Kuzmanov	<i>Caryophyllaceae</i>	2	CR	Pirin Mts (<i>Southern</i>)	Bu, Gr
167.	<i>Moehringia grisebachii</i> Janka	<i>Caryophyllaceae</i>	2	EN	Northeast Bulgaria, Balkan Range (<i>Central & Eastern</i>), Mt Sredna Gora (<i>Western</i>), Thracian Lowlands, Tundzha Hilly Country	Bu, Rm(D), Tu(E)
168.	<i>M. jankae</i> Griseb. ex Janka •▼	<i>Caryophyllaceae</i>	2	EN	Northeast Bulgaria, Balkan Range (<i>Eastern</i>)	Bu, Rm(D)
169.	<i>Myosotis suaveolens</i> Waldst. & Kit. ex Willd.	<i>Boraginaceae</i>	2	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Central</i>)	Al, BH, Bu, Cg, Ct, Gr, Mk, Sr
170.	<i>Oenanthe tenuifolia</i> Boiss. & Orph.	<i>Apiaceae</i>	2	CR	Tundzha Hilly Country, Mt Strandzha	Al, Bu, Gr
171.	<i>Onobrychis degenii</i> Dorfl.	<i>Fabaceae</i>	2	NT	Balkan Range (<i>Eastern</i>), Mt Slavyanka, Valley of River Mesta, Rhodopi Mts (<i>Central & Eastern</i>)	Bu, Mk
172.	<i>O. pindicola</i> Hausskn.	<i>Fabaceae</i>	2	LC	Mt Slavyanka, Pirin Mts	Bu, Gr, Mk

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
173.	<i>Onosma rhodopea</i> Velen.	<i>Boraginaceae</i>	⊕	EN	Mt Slavyanka, Pirin Mts (<i>Southern</i>), Rhodopi Mts (<i>Central</i>), Thracian Lowland	Bu, Gr
174.	<i>O. thracica</i> Velen.	<i>Boraginaceae</i>	‡	–	Black Sea Coast, Northeast Bulgaria, Balkan Range (<i>Eastern</i>), Znepole Region, Rhodopi Mts (<i>Eastern</i>), Thracian Lowland, Tundzha Hilly Country	Bu, Tu(E)
175.	<i>Orobanche esulae</i> Pančić	<i>Orobanchaceae</i>	‡	–	Black Sea Coast, Balkan Range (<i>Western</i>), Rhodopi Mts (<i>Western & Central</i>), Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Sr
176.	<i>O. serbica</i> G. Beck & Petrović	<i>Orobanchaceae</i>	⊕-‡	–	Znepole Region	Bu, Cg, Sr
177.	<i>Paronychia rechingeri</i> Chaudhuri	<i>Caryophyllaceae</i>	‡	–	Mt Slavyanka	Bu, Gr
178.	<i>Pastinaca argyrophylla</i> Delip.	<i>Apiaceae</i>	‡	–	Mt Slavyanka	Bu, Gr
179.	<i>P. hirsuta</i> Pančić	<i>Apiaceae</i>	‡	–	Northeast Bulgaria, Forebalkan, Balkan Range, Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Mt Strandzha	Al, Bu, Cg, Gr, Mk, Sr
180.	<i>Pedicularis grisebachii</i> Wettst.	<i>Scrophulariaceae</i>	‡	–	Forebalkan (<i>Western</i>), Balkan Range (<i>Western & Eastern</i>), Sofia Region, Mt Vitisha Region, West Frontier Mts, Tundzha Hilly Country	Al, Bu, Cg, Gr, Sr
181.	<i>P. leucodon</i> Griseb.	<i>Scrophulariaceae</i>	‡	NT	Balkan Range, Sofia Region, Znepole Region, Mt Vitosha Region, Mt Belasitsa, Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, BH, Bu, Gr, Mk, Sr
182.	<i>P. moesiaca</i> Standl.	<i>Scrophulariaceae</i>	‡	–	Balkan Range (<i>Western & Central</i>), Sofia Region, Mt Vitosha Region, Rila Mts, Rhodopi Mts (<i>Western</i>)	Bu, Gr, Mk, Sr
183.	<i>P. orthantha</i> Griseb.	<i>Scrophulariaceae</i>	‡	–	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, Pirin Mts, Rila Mts	Bu, Gr, Mk
184.	<i>Petkovia orphanidea</i> (Boiss.) Stef.	<i>Campanulaceae</i>	⊕	EN	Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr
185.	<i>Petrorrhagia thessala</i> (Boiss.) P.W. Ball & Heywood	<i>Caryophyllaceae</i>	‡	EN	Pirin Mts	Bu, Gr, Mk
186.	<i>Peucedanum oligophyllum</i> (Griseb.) Vandas	<i>Apiaceae</i>	‡	LC	Znepole Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts	Al, Bu, Gr, Mk, Sr
187.	<i>P. vittigium</i> Boiss.	<i>Apiaceae</i>	⊕-‡	VU	Balkan Range (<i>Central & Eastern</i>), Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Al, Bu, Gr, Mk, Sr
188.	<i>Pinus peuce</i> Griseb.	<i>Pinaceae</i>	ḥ	NT	Balkan Range (<i>Central</i>), Mt Vitosha Region, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Gr, Mk, Sr
189.	<i>Poa macedonica</i> (Acht.) Stoeva & Kožuharov	<i>Poaceae</i>	‡	LC	Pirin Mts	Bu, Gr
190.	<i>P. pirinica</i> Stoj. & Acht.	<i>Poaceae</i>	‡	VU	Pirin Mts	Bu, Gr
191.	<i>Polygala acarmanica</i> (Chodat) Kožuharov & Petrova	<i>Polygalaceae</i>	‡	DD	Pirin Mts	Bu, Gr
192.	<i>P. rhodopea</i> (Velen.) Janch.	<i>Polygalaceae</i>	‡	NT	Balkan Range (<i>Eastern</i>), Valley of River Struma, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rhodopi Mts, Thracian Lowland	Bu, Gr
193.	<i>Potentilla emilia-popi</i> Nyár.	<i>Rosaceae</i>	‡	CR	Northeast Bulgaria	Bu, Rm(D)
194.	<i>P. montenegrina</i> Pant.	<i>Rosaceae</i>	‡	CR	Rila Mts	Al, BH, Bu, Cg, Mk, Sr
195.	<i>P. nicitii</i> Adamović	<i>Rosaceae</i>	‡	CR	Forebalkan (<i>Western</i>)	Bu, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
196.	<i>P. regis-borisii</i> Stoj.	Rosaceae	¶	LC	Balkan Range (<i>Eastern</i>), Valley of River Struma, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts	Bu, Gr
197.	<i>Pulsatilla slaviankae</i> (Rumelsp.) Jordanov & Kožuharov	Ranunculaceae	¶	-	Mt Slavyanka, Pirin Mts (<i>Southern</i>)	Bu, Gr
198.	<i>Ramonda serbica</i> Pancić •▼	Gesneriaceae	¶	EN	Forebalkan	Al, Bu, Cg, Gr, Mk, Sr
199.	<i>Ranunculus hayekii</i> Dörfl.	Ranunculaceae	¶	-	Balkan Range (<i>Central</i>), Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu
200.	<i>R. incomparabilis</i> Janka	Ranunculaceae	¶	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Mk, Sr
201.	<i>Salix xanthicola</i> K.I. Chr.	Salicaceae	↳	VU	Rhodopi Mts (<i>Eastern</i>)	Bu, Gr
202.	<i>Salvia ringens</i> Sm.	Lamiaceae	¶	-	Black Sea Coast (<i>Northern</i>), Northeast Bulgaria, Forebalkan, Balkan Range (<i>Eastern</i>), Rhodopi Mts (<i>Eastern</i>)	Al, Bu, Gr, Mk, Rm(D), Sr
203.	<i>Sambucus deborensis</i> (Koš.) Koš.	Caprifoliaceae	¶	CR	Northeast Bulgaria, Danubian Plain, Balkan Range (<i>Central</i>), Rhodopi Mts (<i>Central</i>), Thracian Lowland	Al, Bu, Mk
204.	<i>Saponaria straniensis</i> Jordanov	Caryophyllaceae	↳	VU	Rhodopi Mts (<i>Eastern</i>), Mt Strandzha	Bu, Tu(E)
205.	<i>Satureja pilosa</i> Velen.	Lamiaceae	↳	LC	Balkan Range (<i>Western & Central</i>), Znepole Region, Mt Slavyanka, Pirin Mts (<i>Southern</i>), Rhodopi Mts	Bu, Gr
206.	<i>Saxifraga ferdinandi-coburgi</i> Kellerer & Sünd.	Saxifragaceae	¶	VU	Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Central</i>)	Bu, Gr
207.	<i>S. spruneri</i> Boiss.	Saxifragaceae	¶	EN	Pirin Mts (<i>Northern</i>)	Al?, Bu, Gr
208.	<i>S. stribrnyi</i> (Velen.) Podp.	Saxifragaceae	¶	NT	Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Gr
209.	<i>Scabiosa balcanica</i> Velen.	Dipsacaceae	¶	-	Balkan Range (<i>Western</i>), Mt Vitosha Region, Pirin Mts, Rila Mts	Bu, Mk, Sr
210.	<i>S. rhodopensis</i> Stoj. & Stef.	Dipsacaceae	¶	VU	Rhodopi Mts (<i>Central</i>)	Bu, Gr
211.	<i>S. trinitifolia</i> Friv.	Dipsacaceae	¶	-	Throughout country	Al, Bu, Gr, Mk, Sr, Tu(E)
212.	<i>Scrophularia aestivalis</i> Griseb.	Scrophulariaceae	¶	-	Balkan Range (<i>Western & Central</i>), Sofia Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Gr, Mk, Sr
213.	<i>Sedum stefco</i> Stef.	Crassulaceae	¶	VU	Danubian Plain, Forebalkan, Balkan Range (<i>Central</i>), Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr, Mk, Sr
214.	<i>S. tuberiferum</i> Stoj. & Stef.	Crassulaceae	¶	LC	Sofia Region, Znepole Region, Valley of River Struma, Mt Slavyanka, Rila Mts, Rhodopi Mts (<i>Western & Eastern</i>)	Bu, Gr, Mk, Sr
215.	<i>Sempervivum ciliosum</i> Graib	Crassulaceae	¶	LC	Mt Vitosha Region, Valley of River Struma, Mt Slavyanka, Pirin Mts (<i>Southern</i>), Rila Mts, Rhodopi Mts (<i>Western & Eastern</i>), Mt Strandzha	Al, Bu, Gr, Mk
216.	<i>Senecio macedonicus</i> Griseb.	Asteraceae	¶	-	Balkan Range (<i>Western & Central</i>), Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts, Thracian Lowland	Bu, Gr, Mk, Tu(E)
217.	<i>S. pancicii</i> Degen	Asteraceae	¶	NT	Balkan Range (<i>Western & Central</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Central & Eastern</i>)	Bu, Mk, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
218.	<i>Sesleria comosa</i> Velen.	Poaceae	2	-	Balkan Range (<i>Western & Central</i>), Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu, Mk, Sr
219.	<i>S. korabensis</i> (Kümmerle & Jáv.) Deyl	Poaceae	2	-	Mt Slavyanka, Pirin Mts	Al, Bu, Gr, Mk, Sr
220.	<i>S. latifolia</i> (Adamović) Degen	Poaceae	2	-	Throughout country	Bu, Gr, Sr
221.	<i>Sideritis scardica</i> Griseb.	Lamiaceae	2	EN	Mt Slavyanka, Pirin Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Gr, Mk, Sr, Tu(E)
222.	<i>Silene asterias</i> Griseb.	Caryophyllaceae	2	-	Balkan Range (<i>Western</i>), Mt Vitosha Region, West Frontier Mts, Rila Mts	Al, Bu, Gr, Mk, Sr
223.	<i>S. balcanica</i> (Urum.) Hayek	Caryophyllaceae	2	DD	Balkan Range (<i>Central & Eastern</i>)	Bu, Gr, Sr
224.	<i>S. fabarioides</i> Hausskn.	Caryophyllaceae	⊕-2	-	Balkan Range (<i>Eastern</i>), Znepole Region, Mt Vitosha Region, Valley of River Struma, Mt Slavyanka, Pirin Mts (<i>Southern</i>), Mt Sredna Gora (<i>Western</i>), Rhodopi Mts (<i>Central</i>), Thracian Lowland	Al, Bu, Gr, Mk, Sr
225.	<i>S. frivaldszkyana</i> Hampe	Caryophyllaceae	2	-	Black Sea Coast, Balkan Range, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Tundzha Hilly Country	Al, Bu, Gr, Mk, Sr, Tu(E)
226.	<i>S. graeca</i> Boiss. & Spruner	Caryophyllaceae	⊕	EN	Valley of River Struma, Mt Slavyanka	Al, Bu, Gr, Mk
227.	<i>S. sendtneri</i> Boiss.	Caryophyllaceae	2	DD	Balkan Range (<i>Western</i>), Mt Vitosha Region, Znepole Region, West Frontier Mts	Al, BH, Bu, Cg, Ct, Gr, Mk, Sr
228.	<i>S. skorpilii</i> Velen.	Caryophyllaceae	2	-	Black Sea Coast, Balkan Range (<i>Eastern</i>), Valley of River Struma, Rhodopi Mts (<i>Eastern</i>), Thracian Lowland, Tundzha Hilly Country	Bu, Gr, Mk, Sr, Tu(E)
229.	<i>S. waldsteinii</i> Griseb.	Caryophyllaceae	2	-	Forebalkan, Balkan Range (<i>Western & Central</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Gr, Mk, Sr
230.	<i>Soldanella rhodopaea</i> F.K. Mey.	Primulaceae	2	VU	Balkan Range (<i>Western</i>), Mt Vitosha Region, Mt Belasitsa, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Bu, Gr
231.	<i>Stachys leucoglossa</i> Griseb.	Lamiaceae	2	EN	Balkan Range (<i>Eastern</i>), Valley of River Struma, Rhodopi Mts (<i>Eastern</i>), Thracian Lowland, Tundzha Hilly Country	Bu, Gr, Mk, Sr
232.	<i>S. milanii</i> Petrović	Lamiaceae	⊕	EN	Balkan Range (<i>Western</i>), Sofia Region, Znepole Region, Rhodopi Mts (<i>Eastern</i>), Thracian Lowland	Bu, Mk, Sr
233.	<i>S. plumosa</i> Griseb.	Lamiaceae	2	-	Balkan Range (<i>Western</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Belasitsa, Rila Mts, Mt Sredna Gora	Bu, Gr, Mk, Sr
234.	<i>S. serbica</i> Pančić	Lamiaceae	⊕	EN	Znepole Region, Valley of River Struma, Rhodopi Mts (<i>Eastern</i>), Tundzha Hilly Country	Al, BH, Bu, Cg, Gr, Mk, Sr
235.	<i>Stipa balcanica</i> (Martinovský) Kožuharov	Poaceae	2	-	Pirin Mts, Rila Mts	Al, Bu, Gr, Mk
236.	<i>Taraxacum apiculatoides</i> Małecka	Asteraceae	2	-	Sofia Region, Mt Sredna Gora (<i>Western</i>)	Bu, Gr, Mk
237.	<i>T. bulgaricum</i> Soest	Asteraceae	2	-	Balkan Range (<i>Central</i>), Rila Mts	Bu, Gr
238.	<i>T. reiectum</i> Sonck	Asteraceae	2	-	Mt Vitosha Region	Bu, Gr
239.	<i>Thlaspi bellidifolium</i> Griseb.	Brassicaceae	2	EN	Mt Slavyanka, Pirin Mts	Al, Bu, Mk, Sr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
240.	<i>Thymus albanus</i> Heinr. Braun	Lamiaceae	2	-	Balkan Range, Mt Vitosha Region, West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Mk, Sr
241.	<i>T. comptus</i> Friv.	Lamiaceae	2	-	West Frontier Mts, Valley of River Struma, Mt Slavyanka, Pirin Mts, Tundzha Hilly Country	Bu, Gr, Tu(E)
242.	<i>T. longedentatus</i> (Degen & Urum.) Ronn.	Lamiaceae	1-2	-	Rhodopi Mts (<i>Central</i>), Thracian Lowland, Tundzha Hilly Country, Mt Strandzha	Bu, Mk, Sr
243.	<i>T. stojanovii</i> Degen	Lamiaceae	2	CR	Pirin Mts, Rhodopi Mts (<i>Western</i>)	?Al, Bu, Gr, Mk
244.	<i>Trachelium rumelianum</i> Hampe	Campanulaceae	2	VU	Valley of River Struma, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rhodopi Mts (<i>Central & Eastern</i>)	Bu, Gr, Tu(E)
245.	<i>Tifolium pignantii</i> Fauché & Haub.	Fabaceae	2	-	West Frontier Mts, Valley of River Struma, Mt Belasitsa, Pirin Mts (<i>Southern</i>), Rila Mts, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Gr, Mk, Sr
246.	<i>T. trichopterum</i> Pančić	Fabaceae	○	-	Balkan Range (<i>Western & Central</i>), Sofia Region, Znepole Region, Mt Vitosha Region, West Frontier Mts, Valley of River Struma, Mt Slavyanka, Valley of River Mesta, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts, Thracian Lowland, Mt Strandzha	Al, Bu, Gr, Mk, Sr, Tu(E)
247.	<i>T. velenovskyi</i> Vandas	Fabaceae	○	-	Balkan Range (<i>Western & Central</i>), Znepole Region, Mt Vitosha Region, West Frontier Mts, Mt Slavyanka, Pirin Mts, Rila Mts, Mt Sredna Gora, Rhodopi Mts (<i>Western & Central</i>)	Al, Bu, Cg, Mk, Sr
248.	<i>Verbascum adamovicii</i> Velen.	Scrophulariaceae	○	-	Znepole Region, West Frontier Mts, Mt Belasitsa	Bu, Mk, Sr
249.	<i>V. adrianopolitanum</i> Podp.	Scrophulariaceae	○	EN	Balkan Range (<i>Central & Eastern</i>), Rhodopi Mts (<i>Eastern</i>), Thracian Lowland, Mt Strandzha	Bu, Gr, Tu(E)
250.	<i>V. anisophyllum</i>	Scrophulariaceae	○	EN	Znepole Region	Bu, Sr
251.	<i>V. dieckianum</i> Borbás & Degen	Scrophulariaceae	○	CR	Northeast Bulgaria	Bu, Gr, Mk
252.	<i>V. eriophorum</i> Godr.	Scrophulariaceae	○	-	Sofia Region, Znepole Region	Bu, Gr, Mk, Sr
253.	<i>V. humile</i> Janka	Scrophulariaceae	2	LC	Forebalkan (<i>Western</i>), Balkan Range (<i>Central & Eastern</i>), Rhodopi Mts (<i>Central & Eastern</i>), Thracian Lowland	Bu, Gr, Tu(E)
254.	<i>V. nobile</i> Velen.	Scrophulariaceae	○-2	VU	Mt Sredna Gora, Rhodopi Mts, Thracian Lowland	Bu, Gr
255.	<i>V. pseudonobile</i> Stoj. & Stef.	Scrophulariaceae	○-2	-	West Frontier Mts, Valley of River Struma (<i>Southern</i>), Mt Slavyanka	Bu, Gr
256.	<i>V. purpureum</i> (Janka) Hub.-Mor.▼	Scrophulariaceae	○	EN	Black Sea Coast, Thracian Lowland, Tundzha Hilly Country	Bu, Rm(D), Tu(E)
257.	<i>V. roripifolium</i> (Halász) I.K. Ferguson	Scrophulariaceae	○	VU	Valley of River Struma (<i>Southern</i>), Mt Slavyanka, Valley of River Mesta, Rila Mts, Rhodopi Mts, Thracian Lowland	Bu, Gr
258.	<i>V. rupestre</i> (Davidov) I.K. Ferguson	Scrophulariaceae	2	EN	Rhodopi Mts (<i>Eastern</i>), Thracian Lowland	Bu, Gr
259.	<i>V. spathulisepalum</i> Greuter & Rech. f.	Scrophulariaceae	2	EN	Rhodopi Mts (<i>Eastern</i>)	Bu, Gr
260.	<i>Veronica glauca</i> Sm.	Scrophulariaceae	○	CR	Tundzha Hilly Country	Al, Bu, Gr
261.	<i>V. rhodopea</i> (Velen.) Degen ex Stoj. & Stef.	Scrophulariaceae	2	VU	Mt Slavyanka, Rila Mts, Rhodopi Mts (<i>Western</i>)	Al, Bu
262.	<i>V. turrilliana</i> Stoj. & Stef.▼	Scrophulariaceae	2	EN	Mt Strandzha	Bu, Tu(E)
263.	<i>Viola aetolica</i> Boiss. & Heldr.	Violaceae	○-○	-	Forebalkan (<i>Western</i>), Balkan Range (<i>Western & Central</i>), Znepole Region, West Frontier Mts, Pirin Mts, Mt Sredna Gora, Rhodopi Mts	Al, Bu, Gr, Mk, Sr
264.	<i>V. delphinantha</i> Boiss. ▲▼	Violaceae	2	CR	Mt Slavyanka	Bu, Gr

Annex I. Continuation.

No	Species name	Family	Biol. type	Conserv. status	Distribution in Bulgaria (floristic regions)	Distribution in the Balkans
265.	<i>V. ganiatsasii</i> Erben	Violaceae	2	DD	Rhodopi Mts (Central)	Bu, Gr
266.	<i>V. grisebachiana</i> Vis.	Violaceae	2	EN	Pirin Mts, Rhodopi Mts (Central)	Al, Bu, Gr, Mk, Sr
267.	<i>V. orbelica</i> Pančić	Violaceae	○-○	VU	West Frontier Mts, Pirin Mts, Rila Mts, Rhodopi Mts (Western)	Bu, Mk
268.	<i>V. perinensis</i> W. Becker	Violaceae	2	EN	Mt Slavyanka, Pirin Mts	Bu, Gr
269.	<i>V. speciosa</i> Pant.	Violaceae	2	CR	Mt Belasitsa	Al, Bu, Cg, Sr
270.	<i>V. stojanowii</i> W. Becker	Violaceae	2	CR	Mt Belasitsa	Bu, Gr, Mk

Conclusion

The Bulgarian flora comprises some **4030** species, of which about **560** species are anthropophytes (Petrova & Vladimirov 2002). Recently, **10** new for the country alien species have been reported (Cheshmedzhiev & Sokolov 2007; Tzonev 2007; Petrova & Vladimirov 2009; Vladimirov 2009; Vladimirov & Petrova 2009a, b; Petrova, A.S. 2010, etc.). Thus, the native Bulgarian flora comprises some **3460** species. Altogether, **444** endemic species have been found in Bulgaria (**270** Balkan and **174** Bulgarian endemics), and represent *ca.* 12.8 % of the native flora and 11 % of the total Bulgarian flora.

Protected by the national *Biological Diversity Act* (2007) are **165** species (**87** Balkans and **78** Bulgarian endemics), which represent 37.2 % of all endemic vascular plant species for the country. A total of **176** endemics have a national conservation status (**108** Balkan and **68** Bulgarian) (Table 2). However, a significant number of the endemics has not been evaluated yet according to the IUCN criteria mainly due to insufficient information on their populations. Targeted research is needed in this respect in order to preserve this valuable gene fund in the Bulgarian flora.

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